

LOAD CARRYING AXIAL POSITIONERS WITH OVERLOAD ENERGY ABSORPTION

ABSTRACT OF THE DISCLOSURE

An axial positioner capable of yielding to absorb energy under compression or tension loads. The positioner includes an outer tube having first and second ends, a threaded actuator rod extending between the first and second ends and a drive to rotate the actuator rod. A threaded member threadably engaging the actuator rod moves axially between the ends of the outer tube as the actuator rod rotates. The member includes a radial flange extending toward the outer tube. A radially extending load ring spaced axially from the flange is connected to a plurality of axially extending force transmitting elements. A spring positioned between the flange and a load ring expands radially outward against the outer tube when compressed between the flange and the load ring. Loading of the spring against the tube absorbs energy of axial motion of the flange under excessive loads transmitted by the force transmitting elements to the load ring.